

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A communication method, based on a communications standard that defines a cell format with a standard header of a standard length M , for communicating cells from a sender via a communications medium to a receiver, the method comprising:

forming an abbreviated header of length $m < M$, said forming comprising:

forming, within the abbreviated header, a virtual channel identifier (VCID) field that has a VCID field length $V < 16$ bits sufficient to specify a number of virtual channels encountered in a given communications scenario;

forming a PTI (Payload Type Identifier) field as defined in ATM;

forming a CLP (Cell Loss Priority) field as defined in ATM;

forming a DIB (Data Identification Bit) field that takes on a first value to specify that a cell payload is data, and a second value to specify that the cell payload is management information;

forming an MCT (Management Cell Type) field that forms a specification taken from a group including:

a present cell is a channel setup notification cell or a channel close notification cell;

the present cell is an F5 OAM cell;

the present cell is an F4 OAM cell, from end-to-end; and

the present cell is an F4 OAM cell, in the present link (segment) only; and

forming an ERROR CONTROL field;

and

sending a cell, including the abbreviated header, over the communications medium.

2. (Original) The method of claim 1, wherein:
the communications standard is asynchronous transfer mode (ATM); and
 $M = 5$ octets.
3. (Original) The method of claim 2, wherein:
 $m = 2$ octets.
4. (Original) The method of claim 1, further comprising:
receiving the cell that was sent over the communications medium; and
unpacking information from the abbreviated header of length m .
5. (Original) The method of Claim 4, further comprising:
using the unpacked information from the abbreviated header of length m so as to
form a standard header of the standard length M ; and
forming a standard cell including the standard header of the standard length M .
6. (Original) The method of Claim 5, further comprising:
sending the standard cell of the standard length M , further downstream from the
receiver.
7. (Cancelled).
8. (Currently Amended) The method of claim ~~7~~1, wherein:
the given communications scenario involves communicating the cells in a digital
subscriber line (DSL) network; and
 $V \leq 5$ bits.
9. (Cancelled).

10. (Currently Amended) The method of Claim 91, wherein:

- the PTI field has a PTI length of three bits;
- the CLP field has a CLP length of one bit;
- the DIB field has a DIB length of one bit;
- the MCT field has an MCT length of two bits; and
- the ERROR CONTROL field has a EC length of four bits.

11. (Original) The method of Claim 10, wherein:

- the given communications scenario involves communicating the cells in a digital subscriber line (DSL) network; and

$V \leq 5$ bits.

12. (Currently Amended) A method of forming an abbreviated header of length $m < M$ for incorporation into a cell to be communicated from a sender via a communications medium to a receiver in accordance with a communications standard that defines a standard header of length M , the method comprising:

- collecting information required for fields of the abbreviated header;

- inserting the information into the abbreviated header of length m , said inserting comprising:

- forming, within the abbreviated header, a virtual channel identifier (VCID) field that has a VCID field length $V < 16$ bits sufficient to specify a number of virtual channels encountered in a given communications scenario

- forming a PTI (Payload Type Identifier) field as defined in ATM;

- forming a CLP (Cell Loss Priority) field as defined in ATM;

- forming a DIB (Data Identification Bit) field that takes on a first value to specify that a cell payload is data, and a second value to specify that the cell payload is management information;

- forming an MCT (Management Cell Type) field that forms a specification taken from a group including:

- a present cell is a channel setup notification cell or a channel close notification cell;

the present cell is an F5 OAM cell;

the present cell is an F4 OAM cell, from end-to-end; and

the present cell is an F4 OAM cell, in the present link
(segment) only; and

forming an ERROR CONTROL field;

and

communicating a cell including the abbreviated header from the sender to the receiver substantially in accordance with the communications standard.

13. (Original) The method of Claim 12, wherein the collecting step includes:
reading some of the information from a pre-existing standard header of the standard length M .
14. (Cancelled).
15. (Currently Amended) The method of claim ~~44~~12, wherein:
the given communications scenario involves communicating the cells in a digital subscriber line (DSL) network; and
 $V \leq 5$ bits.
16. (Cancelled).
17. (Currently Amended) The method of Claim ~~46~~12, wherein:
the PTI field has a PTI length of three bits;
the CLP field has a CLP length of one bit;
the DIB field has a DIB length of one bit;
the MCT field has an MCT length of two bits; and
the ERROR CONTROL field has a EC length of four bits.
- 18 – 27 Cancelled.